

TAMARIN, A.I.; BORODULYA, V.A.

Thermal diffusivity (mixing of particles) of a fluidized
bed baffled by screens. Inzh.-fiz. zhur. 6 no.11:26-31
N '63. (MIRA 16:11)

1. Institut teplo- i massobmena AN BSSR, Minsk.

BORODULYA, V.A.; TAMARIN, A.I.

Investigating the effective thermal diffusivity of a fluidized
bed. Inzh.-fiz. zhur. 7 no.12:8-12 D '64 (MIRA 18:2)

1. Institut teplo- i massobmena AN BSSR, Minsk.

Borodushkina, Kh. N.

82118
SOV/81-59-6-21672

Translation from: Referativnyi zhurnal. Khimiya, 1959, Nr 6, p 560 (USSR)

15.9210

AUTHORS: Boguslavskiy, D.B., Golitsyna, A.A., Borodushkina, Kh.N.

TITLE: The Application of Carboxyl-Containing Latexes to the Impregnation of Tire Cord *15*

PERIODICAL: Yaroslavl. prom-st' (Sovnarkhoz Yaroslavl. ekon. adm. r-na), 1958, Nr 5, pp 29 - 34

ABSTRACT: The effect of COOH-groups in a polymer on the stability of the bond between impregnated cord and rubber was studied on divinyl-styrene and divinyl latexes with $\leq 10\%$ methacrylic acid. Carboxyl-containing latexes (CL) without polar additions impart to the cord an increased adhesion property compared to that impregnated by mass-produced SKS-30 latex. The application of impregnating compositions based on CL in combination with resorcinol-formaldehyde resin ensures, under the conditions of static and dynamic deformations, an essential increase in the bond stability of viscous and polyamide cord with rubbers made of natural and synthetic rubber. The bond stability increases to a content of 1-2% COOH-groups in the polymer. The bond stability of the impregnated cord increases with the content in the

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82148
SOV/81-59-6-21672

The Application of Carboxyl-Containing Latexes to the Impregnation of Tire Cord

dispersion of resorcino-formaldehyde resin of up to 9-12%. A film of adhesive made of CL has increased mechanical properties, which ensures a more uniform distribution of tensions between the carcass rubber and the cord during deformations. For CL on the base of SKS the stability of the bond between cord and rubber increases with a decrease in the content of styrene groups, attaining the highest values in the pure divinyl polymer. The stability of the bond between the cord impregnated by CL and rubber increases with an increase in the drying temperature. Under industrial conditions the cord was impregnated by a mixture of the following composition (in weight parts): latex 100, resorcin 6.27, formalin 5, NaOH 0.73, water 911, pH 9.5. Impregnation conditions: velocity 6-12 m/min, temperature in the 3rd section of the chamber 125°C. Stand tests of experimental tire casings confirm the laboratory data on the preferability of CL for impregnating viscose cord, especially for carcass rubbers made of natural rubber and SKS-30AM. In the case of a temperature increase, the bond stability drops less than in the case of usual impregnation. The mileage of the experimental tire casings increases by 16-22%.

I. Fil'menshteyn

Card 2/2

20862

S/138/61/000/003/001/006
A051/A129

11.2211 also 2209

AUTHORS: Reykh, V. N.; Kaiaus, A. Ye.; Roguslavskiy, D. B.; Opalev, A. I.; Dubovik, L. I.; Porodushkina, Kh. N., and Fedorova, Yu. I.

TITLE: Ternary copolymers of butadiene, styrene and 2-methyl-5-vinylpyridine

PERIODICAL: Kauchuk i rezina, no. 3, 1961, 2-8

TEXT: The technical properties, including wear-resistance, of butadiene-styrene polymers can be improved by introducing links containing functional groups into the polymer chain. The main shortcomings of the copolymers with 2-methyl-5-vinylpyridine are their poor compatibility with other polymers hampering the achievement of satisfactory tensility of the protector rubber bond with the breaker rubber and a high tendency of the mixtures based on double copolymers to scorching. The present article studies the initial materials and the technical properties of ternary copolymers, development of a formulation on its base and the results on industrial tests of protector rubbers of a new type. Ternary copolymers of butadiene, styrene and 2-methyl-

Card 1/

20862

S/138/61/000/003/001/006
A051/A129

Ternary copolymers of...

5-vinylpyridine were synthesized on the base of a polymerization formulation adopted for CKC-30A (SKS-30A). The effect of 2-methyl-5-vinylpyridine on the main physico-mechanical properties of vulcanizates was studied and it was found that the ternary copolymers varied depending on the 2-methyl-5-vinylpyridine content (Table 1). They were found to have a higher tensility index and elasticity as compared to rubbers based on the ternary copolymer with -methylstyrene. The copolymers of butadiene, styrene and 2-methyl-5-pyridine produced at the ratio of the monomers of 70:25:5 have the most promising properties. Rubbers produced on a CKC-25 MVP-5 (SKS-25 MVP-5) base with gaseous channel and anthracene carbon blacks are superior to similar rubbers based on butadiene-styrene rubber in their wear-resistance and resistance to crack growth in repeated deformations. The formulations of the protector rubbers based on SKS-25 MVP-5 material were developed and an experimental batch of tire casings 6,00 - 16 in size to be used for service tests was manufactured. Table 2 shows the results of the physico-mechanical testing of vulcanizates based on SKS-25 MVP-5 and SKMVP-15A, SKS-30A, SKS-30AM for comparison. The important advantage of butadiene, styrene and 2-methyl-5-vinylpyridine copolymers is said to be the high stability to scorching at elevated temperatures

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A051/A129

Ternary copolymers of...

(Fig. 1). The effect of certain vulcanizing agents, such as zinc oxide, magnesium oxide, sulfur, as well as certain accelerators, was investigated (Table 3, Fig. 2). The change in the main properties of the vulcanizates depending on the type and amount of carbon black is shown in Figure 3. The noted characteristics of the vulcanizates based on methylvinylpyridine rubbers are thought to be connected with the intensified interaction between the active functional groups in the molecular chain of the copolymer and the carbon black particles, on the surface of which compounds of an acidic nature are adsorbed. In studying the effect of the different softeners, e. g., standard mixtures of rubrax, fuel oil, avtol-18, extract of the phenol purification of petroleum oils, stearin, fatty acids, pine resin and polydienes on the elasto-elastic and physico-mechanical properties, it was seen that the extract of the phenol purification of petroleum oils (U/H-6, PN-6) has the best effect on these properties. Experimental work was carried out to increase the strength of adhesion between the NR brecker tires and the SKS-25 MVP-5 tread by using double-layer treads, where the road rubber contained SKS-25 MVP-5 and the sub-groove rubber SKS-30ARM. The experimental data showed that the fixing of the methylvinylpyridine tread to the NR brecker through a sub-groove layer made of butadiene-styrene rubber ensures a

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20862

Ternary copolymers of...

S/138/61/000/003/001/006
A051/A129

high strength of adhesion of the doubled system. There are 6 tables, 3 sets of graphs, 9 references: 5 Soviet, 3 English, 1 German.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva i Yaroslavskiy shinnyy zavod (All-Union Scientific Research Institute of Synthetic Rubber im. S. V. Lebedev and the Yaroslavl 'Tire Plant)

Card h/

BOGUSLAVSKIY, D.B.; UZINA, R.V.; BORODUSHKINA, Kh.N.; SUCHKOVA, M.G.

Effect of the compounding ingredients of carcass rubbers on the adhesive strength of rubber-cord systems. Kauch.i rez. 21 no.1: 29-33 Ja '62. (MIRA 15:1)

1. Yaroslavskiy shinny zavod i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

(Tire fabrics)

(Adhesives)

44089

S/138/62/000/012/005/010

A051/A126

15 4/00
AUTHORS: Boguslavskiy, D. B., Shmurak, I. L., Borotushkina, Kh. N.,
Berlin, A. A., Uzina, R. V.

TITLE: The effect of active-polymer additions to case mixes on the
strength of adhesion in rubber-cord systems

PERIODICAL: Kauchuk i rezina, no. 12, 1962, 15 - 18

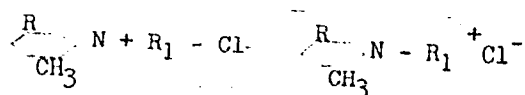
TEXT: The effect was studied of carboxyl-containing and methylvinylpyri-
dine rubber, and of chlorosulfopolyethylene polymer additions to case mixes
based on 100% butadiene-styrene oil-filled rubber on the adhesive strength of
systems with viscous cord saturated with various synthetic latexes. The intro-
duction of carboxyl-containing rubber into BCK (BSK) case mixes increases the
adhesive strength continuously in the systems with viscous cord saturated with
CKC -30-1 (SKS-30-1) and CKD-1 (SKD-1) latex compositions. Maximum adhesive
strength is obtained for rubbers, where the BSK is completely replaced by the
SKS-30-1 rubber. Additions of carboxyl-containing SKS-30-1 rubber affect the
adhesive strength of the rubber-cord even more in the case of cord saturated with

Card 1/3

The effect of active-polymer additions to...

S/138/62/000/012/005/010
A051/A126

methylvinylpyridine compositions. Obtained data showed that methylvinylpyridine latexes of high-temperature polymerization do not offer satisfactory adhesive strength of the cord to rubber, based on butadiene-styrene oil-filled rubber. The effectiveness of the additions increases with an increase in the carboxyl-group content in the adhesive, and pyridine-group content in the case rubber. Experimental results have led to the conclusion that a further increase of the adhesive strength of rubber to cord can be accomplished by introducing reactive groups into the adhesive and case mix which, in turn, increase the inter-molecular and chemical interaction at the contact region. Formation of a connection, at the contact region, such as:



in the case of combinations of pyridine adhesives and rubber containing additions of chlorosulfopolyethylene or other chloro-containing polymers, is assumed possible. Thus, it is further concluded that the use of an adhesive containing functional groups in combination with active additions in the case mixes leads

Card 2/3

The effect of active-polymer additions to...

S/138/62/000/012/005/010
A051/A126

to new possibilities for increasing the adhesive strength in rubber-cord systems.
There are 4 figures and 3 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i
Yaroslavskiy shinny zavod (Scientific Research Institute of the
Tire Industry and Yaroslavl' Tire Plant)

Card 3/3

BLOKH, G.A., doktor khimich. nauk, prof.; NEYMARK, I.Ye., doktor khimich. nauk, prof.; BORODUSHKINA, Kh.N., inzh.; BOGUSLAVSKIY, D.B., inzh.; SHEVCHENKO, Yu.G., inzh.

Molecular sieves and problems of rubber vulcanization. Izv. vys. ucheb. zav.; tekh. leg. prom. no.4:46-53 '63. (MIRA 16:10)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut (for Blokh).
2. Institut fizicheskoy khimii AN UkrSSR (for Neymark.)
3. Dnepropetrovskiy shynny zavod (for Borodushkina, Boguslavskiy, Shevchenko). Rekomendovana kafedroy tekhnologii reziny Dnepropetrovskogo khimiko-tehnologicheskogo instituta.

ACCESSION NR: AP4017159

S/0138/64/000/002/0001/0005

AUTHORS: Borodushkina, Kh. N.; Blokh, G. A.; Boguslavskiy, D. B.; Gendler, T. R.; Neymark, I. Ye.

TITLE: Vulcanization of rubber compounds in the presence of filled zeolites

SOURCE: Kauchuk i rezina, no. 2, 1964, 1-5

TOPIC TAGS: rubber, rubber compound, vulcanization, scorching, accelerator, Altax, Santocure, phenylguanidine, zeolite, filled zeolite, ammonia, methylamine, dimethylamine, ethanolamine, adsorption, kinetics of desorption

ABSTRACT: The vulcanization of protective and brake rubber compounds from natural and butadiene-styrene rubbers of the SKMS-30ARKM brands was conducted in the presence of synthetic zeolites of the NaKh type with pores 10 Å in diameter, filled with ammonia, methylamine, dimethylamine, monoethanolamine, and diethanolamine. These filled zeolites were used in the capacity of secondary accelerators of vulcanization (instead of Altax and diphenylguanidine) in combination with the basic accelerator Santocure. It was found that an increase of ammonia content in protective and brake rubber compounds to 0.25 and 0.40% (by weight), respectively,

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ACCESSION NR: AP4017159

permitted the production of materials with a higher degree of vulcanization, while still preserving the resistance of the compounds to scorching. The use of ammonia-filled zeolites also resulted in a substantial saving of time, achieving within 30 minutes a degree of vulcanization for protective rubber equal to that attained by Altax in 50 minutes. Methylamine and dimethylamine exert a similar effect on the vulcanization of rubber compounds when used in association with zeolites. While the ethanolamines are known to act as accelerators of vulcanization, their direct application causes (within 20-26 minutes at 110C) some scorching of the compounds during the working operation. However, when adsorbed on zeolites, monoethanolamine and diethanolamine impart to brake-rubber compounds a state of plastic flow which lasts for 37-39 minutes. It was found that the physical and mechanical properties of these vulcanized rubbers were practically identical with those of the vulcanizates produced with the aid of Altax and diphenylguanidine. The kinetics of desorption of amines from zeolites at various temperatures was studied, and it was observed that a 10-minute heating at 140C caused the desorption of only 40% monoethanolamine and 18% diethanolamine. The capacity of zeolites to retain the amines at elevated temperatures lessens the danger of scorching in the vulcanization process. Orig. art. has: 3 tables and 2 charts.

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ACCESSION NR: AP4017159

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskoy institut,
Dnepropetrovskiy shinnyy zavod i institut fizicheskoy khimii AN SSSR
(Dnepropetrovsk Chemical and Technical Institute, Dnepropetrovsk Tire Plant
and Institute of Physical Chemistry, AN SSSR)

SUBMITTED: 00

DATE ACQ: 23Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: 007

OTHER: 001

Card 3/3

SHCHICHKO, Z.V. [Shchychko, Z.V.]; SIMAKOVA, E.P. [Symakova, E.P.];
BOGUS'AVSKIY, D.B. [Bohuslava'kyi, D.B.]; BLOKH, G.A. [Blok, H.A.], doktor khim. nauk; PIVOVAROVA, Yu.V. [Pyvovarova, IU.V.];
BORODUSHKINA, Kh.N.

Increasing the strength of the bonds between the elements of
automobile tires. Khim. prom. no.4:21-22 O-D '64.

(MIRA 18:3)

BORODUSHKINA, Kh.N. [Borodushkina, Kh.M.]; BLOKH, G.A. [Blok, H.A.];
BOGUSLAVSKIY, D.B. [Bohuslav'kiy, D.B.]; NEYMARK, I.Ye.
[Neimark, I.IE.]; GENDLER, T.R. [Hendler, T.R.]

Molecular sieves (zeolites) as rubber curing accelerators,
Dop. AN URSR no.8:1084-1087 '64. (MIRA 17:8)

1. Dnepropetrovskiy khimiko-tehnologicheskoy institut;
Dnepropetrovskiy shinnyy zavod i Institut fizicheskoy khimii
AN UkrSSR. Predstavleno akademikom AN UkrSSR F.D. Ovcharenko.

ACCESSION NR: AP4045700

S/0138/64/000/009/0025/0027

AUTHOR: Eytlingon, I. I.; Borodushkina, Kh. N.; Kamenskaya, S. A.; Tikhacheva, Ye. P.

TITLE: Possible use of dimethylaminomethyl phthalimide as a secondary accelerator of vulcanization

SOURCE: Kauchuk i rezina, no. 9, 1964, 25-27

TOPIC TAGS: vulcanization, accelerator, dimethylaminomethyl phthalimide, diphenylguanidine, phthalic anhydride, N-nitrosodiphenyl amine, cushion rubber, tread rubber, tire manufacture, vulcanization accelerator / Altax, Captax, Santocure

ABSTRACT: Dimethylaminomethylphthalimide (AMP, b.p. 76-77C) was synthesized by the reaction of phthalimide with formalin and dimethylamine, after which it was combined with Captax, Altax and Santocure and tested in mixtures based on natural and butadiene-styrene rubbers. The tabulated data for unfilled mixtures of natural rubber containing AMP and Altax are compared with the data obtained for analogous mixtures with Altax and diphenylguanidine (DPG). It was found that AMP is a secondary accelerator of vulcanization of rubber mixtures, although with a lower activity than that of DPG. The necessary increase in AMP content results in a much smaller tendency to pre-vulcanization. Vulcanized rubbers containing di-

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ACCESSION NR: AP4045700

methylaminomethylphthalimide have characteristics (tensile strength, elongation, hardness, aging) equivalent to those of vulcanized rubbers containing diphenylguanidine except for the modulus of elasticity, which is somewhat higher. For some mixtures, AMP can completely replace diphenylguanidine and phthalic anhydride or N-nitrosodiphenyl amine. The experimental data for natural cushion rubbers (with 25 parts by weight of furnace gas black and 15 parts by wt. of channel black for 100 parts of rubber) and for tread rubbers (containing 50 parts by wt. of KhAF furnace black for 100 parts by wt. of rubber) based on butadiene-styrene with different amounts of components (Altax, Santocure and AMP) are tabulated and compared. The variation in properties depending on the amount of accelerators is discussed. "T. Gendler took part in the experimental work." Orig. art. has: 4 tables and 1 structural formula.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry); Dnepropetrovskiy shinnyy zavod (Dnepropetrovsk Tire Plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, M

NO REF SOV: 000

OTHER: 002

Cord 2/2

BORODUSHKINA, Kh.N.; BLOKH, G.A.; BOGUS'AVSKIY, D.B.; GENDLER, T.R.;
NEYMARK, I.Ye.; PIONTKOVSKAYA, M.A.

Synthetic zeolites as carriers of rubber vulcanization accelerators.
Kozh. obuv. prom. 6 no.6:14-19 Je '64. (MIRA 17:9)

SAPRONOV, V.A.; KURPICHEVA, T.N.; TOKAREVA, L.T.; CHAVCHICH, T.A.;
LEVIT, G.M.; BORODUSHKINA, Kh.N.; BOGUSLAVSKIY, D.B.

Effect of some formula and technological factors on the quality
of butyl rubber diaphragms for the forming and vulcanizing
equipment. Kauch. i rez. 23 no.5:14-19 My '64.

(MIRA 17:9)

1. Dnepropetrovskiy shinnyy zavod.

EYTINGON, I.I.; BORODUSHKINA, Kh.N.; KAMENSKAYA, S.A.; TIKHACHEVA, Ye.P.

Possibility of using dimethylaminomethyl phthalimide as a
secondary accelerator of vulcanization. Kauch. i rez. 23 no.9:
25-27 S '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i
Dnepropetrovskiy shinnyy zavod.

L 13814-65 EWT(m)/EPF(c)/EPR/ENP(j) Pc-4/Pr-4/PS-4 WM/RM

ACCESSION NR: AP4047669

S/0138/64/000/010/0012/0016

AUTHOR: Chavchich, T. A., Levit, G. M., Sapronov, V. A., Borodushkina, Kh. N.,
Boguslavskiy, D. B., Omel'chenko, R. Ya.

TITLE: Some peculiarities in the vulcanization of butyl rubber with alkyl-
phenolformaldehyde resins 15 15

SOURCE: Kauchuk i rezina, no. 10, 1964, 12-16

TOPIC TAGS: butyl rubber, alkylphenolformaldehyde resin, vulcanization,
polyvinyl chloride, vulcanization accelerator, polymer aging, polymer cross-
linking, metal oxide

ABSTRACT: The effect of polyvinyl chloride derivatives, copolymer 40,
Nairit A, and Nairit (chloroprene) on the vulcanization of butyl rubber with
alkylphenolformaldehyde was investigated. The composition and method of prepara-
tion of the polymers are given. The physico-mechanical properties of rubbers
with different chlorine-containing polymers (0.65 parts by wt. of accelerator
calculated for chlorine, at a vulcanization temperature of 170C) are plotted and
show that all polymers (except Nairit) accelerate the vulcanization of butyl
rubbers. In contrast to neoprene W, Nairit A does not accelerate the vulcaniza-
tion, but favorably affects the modulus during thermal aging. With an increasing

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L 13814-65
ACCESSION NR: AP4047669

amount of polymer, the difference between the two polymers is more pronounced. A very special feature of mixtures prepared with chlorosulfopolyethylene is the more rapid vulcanization in the initial period and the lower modulus values when the vulcanization time is increased. This is apparently due to the variation in the conditions of dehydrochlorination at different temperatures. Tabulated data show that all polymers tested improve the heat stability of butyl rubber vulcanizates but (except for Nairit A) considerably increase the modulus and decrease the relative elongation of rubbers during heat aging. Depending on the type of catalyst used, the degree of cross-linking can be controlled during aging with metal oxides or organic compounds containing a certain number of functional groups. The effect of ZnO and $Zn(OH)_2$ on the degree of vulcanization and of MgO and PbO on the modulus during vulcanization for 45 min. at $170^\circ C$ is plotted. By replacing ZnO with $Zn(OH)_2$ the degree of vulcanization is decreased; in equimolecular amounts, PbO is more effective. The addition of 6-ethoxy-2,2,4-trimethyl-1,2-dihydroquinoline to mixtures with chlorosulfopolyethylene and copolymer 40 gives a degree of cross-linking identical to that of rubber containing Nairit A, but with a more favorable rate of vulcanization. The fatigue strength of butyl

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L 13814-65

ACCESSION NR: AP4047669

rubbers containing chlorinated polymers with different additives under thermal aging at 60C and for 48 hrs. (100% elongation, 250 cycles/min., 20C) showed that by varying the content of accelerators and inhibitors, rapidly vulcanizing rubbers with good dynamic properties can be obtained. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: Dnepropetrovskiy shinnyy zavod (Dnepropetrovsk Tire Plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: 00

NO REF SOV: 001

OTHER: 009

Cord 3/3

BORODUL'KINA, N. V.

L 39769-65 EST(n)/DMP(j)/T Pg-4 RM
 REGISTRATION: AF0005389

3/0138/65/000/002/0002/0007

AUTHORS: Semenov, V. A.; Boguslavskiy, D. B.; Chavchich, T. A.; Kupriyanova,
O. N.; Lavik, G. R.; Borodul'kina, N. V.

TITLE: The use of aliphatic formaldehyde resins for vulcanisation of general purpose rubber ²¹_B

SOURCE: Kauchuk i rezina, no. 2, 1965, 2-7

TECH TAGS: rubber, resin, vulcanization, formaldehyde/BSK rubber, SKD rubber,
SKS-30-1 rubber

ABSTRACT: The authors have presented experimental results on the vulcanization of a number of varieties of general-purpose rubber (BSK, SKD, SKS-30-1) by aliphatic formaldehyde resins. Various combinations were employed, and the resulting materials were tested for standard properties. It was found that the various vulcanizates of these general-purpose rubbers (butadiene-styrene, carbon black-bearing, cis-butadiene) out-perform rubber vulcanized by sulfur. They have greater resistance to prolonged exposure to heat, have greater durability, and have higher endurance during repeated bending. With equivalent concentration

Card 1/2

L 39769-65

ACCESSION NR: AP5005389

of crosslinkage in resinous vulcanizates, as compared with sulfur vulcanizates, higher strength characteristics are obtained. Rubber mixtures of general-purpose rubber containing n-allylphenolformaldehyde resin as the structuring agent also surpass mixtures with sulfur vulcanizates in resistance to scorching. Orig. art. has: 6 figures and 4 tables.

ASSOCIATION: Dnepropetrovskiy shinnyy zavod (Dnepropetrovsk Tire Factory)

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 006

OTHER: 005

Card 2/2

ACCESSION NR: AP5017845

UR/0286/65/000/011/0079/0079

678.028.044.3

AUTHOR: Eytngon, I. I.; Kamenskaya, S. A.; Borodushkina, Kh. N.; Gendler, T.R.;
Lavitin, I. A.; Boguslavskiy, D. B.

TITLE: A method for vulcanizing unsaturated rubber. Class 39, No. 171571

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 79

TOPIC TAGS: rubber vulcanization, vulcanization acceleration

ABSTRACT: This Author's Certificate introduces a method for vulcanizing unsaturated rubber using accelerators and secondary accelerators--aminomethyl derivatives of dicarboxylic acid imides. A wider selection of secondary accelerators is provided by using piperidino- and morpholinomethyl derivatives of dicarboxylic acid imides.

ASSOCIATION: none

SUBMITTED: 09Dec63

ENCL: 00

SUB CODE: MT, GC

NO REF SOV: 000

OTHER: 000

Card 1/1

L 01149-66 ENT(m)/EPF(c)/ENP(j) RM

ACCESSION NR: AP5022000

UR/0286/65/000/014/0076/0076
678.043.044

AUTHOR: Boguslavskiy, D. B.; Borodushkina, Kh. N.; Malinovskiy, M. S.;
Kolenskaya, A. I.; Kupriyanova, O. M.; Romanov, A. S.; Sapronov, V. A.; Trokay,
S. P.; Chavchich, T. A.; Yurilina, L. M.; Kovaleva, V. F.

TITLE: A method for vulcanizing rubber. Class 39, No. 172984

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 76

TOPIC TAGS: vulcanization, rubber, polymer, polyester plastic

ABSTRACT: This Author's Certificate introduces a method for vulcanizing rubber by using alkylphenolformaldehyde resins in the presence of chloride-containing polymer accelerators. A wider selection of accelerators is provided by using polyester resins--products of condensation of glycerine α -monohydrochloride with phthalic and/or maleic anhydride.

ASSOCIATION: none

SUBMITTED: 10 Nov 63

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: MT

Cord 1/1 DP

L 7883-66 EWT(m)/EWP(j) RM

ACC NR: AP5025013

SOURCE CODE: UR/0286/65/000/016/0079/0079

AUTHORS: Boguslavskiy, D. B.; Borodushkina, Kh. N.; Kupriyanova, O. N.; Mal'tsev, V. N.; Sapronov, V. A.; Chavchich, T. A.

ORG: none

TITLE: A method for the vulcanization of rubbers by alkylphenolformaldehyde resins. Class 39, No. 173921

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 79

TOPIC TAGS: rubber, vulcanizing agent, halogen organic compound, vulcanizate, resin, formaldehyde, vulcanization

ABSTRACT: This Author Certificate presents a method for vulcanizing rubbers by alkylphenolformaldehyde resins in the presence of vulcanizing accelerators—halogen-containing organic substances. To improve the method, the halogen-containing organic compounds are added in the form of halogenated esters of aromatic and aliphatic carboxylic acids.

SUB CODE: 11 / SUBM DATE: 12Apr63

Card 1/1

UDC: 678.028.294:678.044:547.29'26

L 44366-66 EWT(m)/EWP(j)/EWP(k)/T/EWP(e)/EWP(t)/ETI IJP(c) RM/WH/WW/JD
ACC NR: AP6019736 (A) SOURCE CODE: UR/0063/66/011/003/0348/0350

AUTHOR: Nosnikov, A. F.; Borodushkina, Kh. N.; Boguslavskiy, D. B.; Chernukhina, A. F.; Khomutov, A. I.; Blokh, G. A.

ORG: Dnepropetrovsk Institute of Chemical Technology im. F. E. Dzerzhinskiy 45
(Dnepropetrovskiy khimiko-tekhnologicheskii institut); Dnepropetrovsk Tire Plant 3
(Dnepropetrovskiy shinnyy zavod); VNII of Glass Fibers (VNII steklovolokna)

TITLE: Porous silicon fibers acting as carriers of gaseous vulcanizing agents and accelerators 15

SOURCE: Vses khim obshch. Zh, v. 11, no. 3, 1966, 348-350

TOPIC TAGS: vulcanization, rubber, silicon plastic

ABSTRACT: The effect of porous silicon fibers containing hydrogen sulfide, ammonia, and sulfur dioxide on the physicomaterial properties of tire rubbers was investigated. The pore diameters ranged from 2.8 Å to 75 Å. The vulcanization temperature was 143-163°C and the vulcanization duration was 10-80 minutes. The fiber contents in the rubber were as high as 10%. Up to 10 wt %, the incorporation of the silicon fibers affected neither the vulcanization process nor the mechanical properties of the tire rubbers. It was found that rubbers prepared using ammonia accelerator were qualitatively as good as those vulcanized with sulfur compounds and diphenylguanidine ac-

UDC: 666.86+675.5

Card 1/2

L 44366-66

ACC NR: AP6019736

celerator. In all cases, the tire rubbers vulcanized with ammonia exhibited excellent mechanical properties. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 11/

SUBM DATE: 16Jun65/

ORIG REF: 004

Card 2/2 hs

L 44175-66 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6011230 (A) SOURCE CODE: UR/0413/66/000/006/0073/0073

INVENTOR: Boguslavskiy, D. B. ; Borodushkina, Kh. N. ; Kupriyanova, O. N. ;
Malinovskiy, M. S. ; Saprnov, V. A. ; Chavchich, T. A.

ORG: none

TITLE: Method of vulcanizing synthetic rubbers by alkylphenolformaldehyde resins.
Class 39, No. 179915

SOURCE: Izobreteniya, promyshlennyye obraatsy, tovarnyye znaki, no. 6, 1966, 73

TOPIC TAGS: vulcanization, synthetic rubber, phenolformaldehyde, benzene, resin

ABSTRACT: An Author Certificate has been issued for a method of vulcanizing synthetic rubbers by alkylphenolformaldehyde resins in the presence of haloid-containing compounds. To speed up the vulcanization process, α, β -dibromomethyl benzene is used as the haloid-containing compound. [Translation] [NT]

SUB CODE: 11/3/SUBM DATE: 30Jan65/

Cord 1/1 *all*

UDC: 678.7.028.294.044:547.539

1. BORODVACHENKO, P. I.; DRONOV, A. N., Engs.
2. USSR (600)
4. Conveying Machinery
7. Moving lumber on a belt conveyor at a great angle, Sel'khoz mashina, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

BORODYANSKAYA, A. N.; FRANTSUZOV, B. L.

"The Problem of the Significance of Diseases of Throat, Ear, and Nose
in the Pathogenesis of Grippe and Colds," Voenno-Med. Zhur., No. 11, p. 65, 1955.

BORODYANSKAYA, Yu.N., vrach

Exercise therapy in the compound treatment of diseases of the
respiratory organs at the Aktash Sanatorium. Sbor.trud.Uz.gos.
nauch.-issl.inst.kur. i fizioter. 17:88-95 '62. (MIRA 17:7)

NEKRASOV, I.Ya.; ROZHKOV, I.S.; BORODYANSKIY, A.I.

Gold deposits in the northwestern Verkhoyansk-Chukchi folded area.
Geol. i geofiz. no.4:64-73 '61. (MIRA 14:5)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.
(Verkhoyansk Range region—Gold ores)
(Chukchi Range region—Gold ores)

BORODYANSKIY, E.A.; TSEYTLIN, I.M.; KHINICH, R.Z.

Modernization of the RS-2 rubber mixer. Kauch.i rez. 20 no.3:38-39
Mr '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy konstruktorsko-tekhnologicheskii institut
shinnoy promyshlennosti i Omskiy shiriny zavod.
(Rubber machinery)

BORODYANSKIY, I.A., inzhener; GUGEL', Yu.S., inzhener.

~~TOP SECRET~~
Adjusting electromagnetic voltage stabilizers on 100-Mw turbogenera-
tors. Elek.sta. 27 no.9:56-58 S '56. (MLRA 9:11)
(Voltage regulators)

L 13262-65 EPA(s)-2/EWT(m)/EPF(n)-2/EWA(d)/EWP(t)/EWP(b) Pt-10/Pu-4 ASD(n)-3/
ACCESSION NR: AP4047689 AFIC(p) M.JW/JD/WW/JG S/0304/64/000/005/0027/0128

AUTHORS: Borodyanskiy, L. Ia. (Engineer); Dukhota, A. M. (Engineer)

TITLE: Experiments to introduce stamping of liquid nonferrous alloys

SOURCE: Mashinostroyeniye, no. 5, 1964, 27-28

TOPIC TAGS: metal stamping, nonferrous liquid metal, nonferrous metal working/
5KhNM steel, Al 2 alloy, LS 59-1L alloy

ABSTRACT: A 250-ton friction press with dies made from 5KhNM steel (dies 45-48HC) was used to stamp-form simple parts from liquid nonferrous alloy AL-2 (660-700C) and LS 59-1L (1020-1050C). The die clearances were held to 0.2-0.5 mm and the resulting parts had dimensional accuracy of 0.5-1 mm or class 5-7, while the surface finish was class 5. Before pouring, the metal the dies were heated to 80-100C and coated with wax; during the forming, the dies were cooled with compressed air because the stamping had to be performed slowly to permit escape of trapped gases. It was found that the microstructure of the samples was very close to that obtained in hot stamping, while the mechanical properties were much better than those obtained in casting ($\sigma = 22-26$ kg/mm², elongation 8%, Brinell hardness 59-62, as compared with 16, 2 and 50 respectively for cast parts). Orig. art. has: 1 table.

Card 1/2

L 13262-65
ACCESSION NR: AP4047689

ASSOCIATION: none

SUBMITTED: 00

SUB CODE: MM

NO REF SOV: 000

ENCL: 00

OTHER: 000

Card 2/2

BORODYANSKIY, I.Ye., inzh.; ZLOBINSKIY, B.A., inzh.

Coremaking in hot containers. Mashinostroenie no.2:61-62
Mr.-Ap '65. (MIRA 18:6)

SADOMSKIY, A.L., inzh.; BORODYANSKIY, L.Ye., inzh.

The PTB 70:15:15 pattern mix. Mashinostroenie no.1:54-55 Ja-F
'65. (MIRA 18:4)

SADOMSKIY, A.L., inzh.; BORODYANSKIY, L.Ye., inzh.; TREFNYAK, V.A., inzh.

Making steel castings with easily separated risers. Mashinostroenie
no.4:69-70 J1-Ag '65. (MIRA 18:8)

BORODYANSKIY, L. Ye., inzh.; VYSOTSKIY, B.N., inzh.; DUKHOTA, A.M., inzh.

Replacing stannuous bronze for the pistons of excavator hydraulic cylinders. Mashinostroenie no.6:55-56 N-D '64 (MIRA 18:2)

L 29973-66

ACC NR: AP6006466

SOURCE CODE: UR/0064/65/000/010/0783/0785

AUTHOR: Kovalenko, L. M.; Petrushin, P. I.; Borodyanskiy, M. B.

70
B

ORG: None

TITLE: Sectional plate cooler for phosphoric acid production by the furnace method

SOURCE: Khimicheskaya promyshlennost', no. 10, 1965, 783-785

TOPIC TAGS: phosphoric acid, cooling, heat carrier, heat exchanger, industrial heat exchanger, heat transfer, chemical engineering, industrial production, chemical industry

ABSTRACT: The design of a sectional plate-type cooler for phosphoric acid production by the furnace method is described in detail. It was tested and recommended for series production in 1964. Each steel plate is 1370 mm in length, 500 mm in width, and 1 mm in thickness. The heat-transfer surface is 0.5 sq m, the cross section area of a channel formed by two plates is 0.0018 sq m, the diameter of the channel is 0.008 m, the stream length in the channel is 1.15 m, and the total heat-transfer surface is 100 sq m. The permissible pressure and temperature in the cooler is 6 atm and 120 °C, respectively, the total weight of the cooler made from carbon and stainless steel including 1260 kg of Kh17N13M2T steel is 2500 kg, and its length is

Cord 1/2

UDC: 66.045.5: 661.634

L 29973-66

ACC NR: AF6006466

3300 mm, width 700 mm, and height 1850 mm. This cooler whose heat-transfer surface is 100 sq m. replaces 15 carbon graphite coolers with a total heat-transfer surface of 160 sq m at nearly half the water consumption. The cooler when produced in series will not exceed the cost of a shell-and-tube-type heat exchanger of the same heat-transfer surface and material, and will cost one-third less than the carbon graphite heat exchanger. Orig. art. has: 2 figures and 3 tables. (1)

SUB CODE: 07,13/ SUBM DATE: none/ ORIG REF: 001

Card 2/2 *20*

BORODYANSKIY, M. Ya.

USSR/Physics - Stability

11 Apr 52

"Concerning One Error Tolerance in Computing the Stability of Cyclic-Symmetrical Systems," M. Ya. Borodyanskiy, Kiev Technol Inst of Food Ind Imeni A. I. Mikoyan

"Dok Ak Nauk SSSR" Vol LXXXIII, No 5, pp 671-673

Considers the detn of the crit load of a polygonal and multistage cyclic-sym frame, in which case it is necessary to set up and solve high-order determinants (order $4mn$, where m is the number of stages and n is the number of faces (edges) or ribs

218780

USSR/Physics - Stability (Contd)

11 Apr 52

of the system). Therefore, discusses simplifying computations and tolerance of errors thus introduced. Submitted by Acad A. I. Nekrasov 20 Feb 52.

218780

BOGDANOVICH, M. Ia.

"Stability of an Open Polygon With Fixed Junctures," Tr. Kievsk. Tekhnol. In-ta
Pishev. Prom-sti, No 13, 1953, pp. 191-193

A solution of the problem using the apparatus of matrix calculus is presented and a series of values of the smallest characteristic numbers for various numbers of intermediate supports is determined. The author states that the solution of an equivalent problem had been achieved earlier through the application of finite difference equations. (RZhMekh, No 5, 1955) SO: Sum.No. 713, 9 Nov 55

SOV/124-57-3-3585

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 138 (USSR)

AUTHOR: Borodyanskiy, M. Ya.

TITLE: On Various Forms of Buckling Occurring at Identical Values of Critical Loading (O raznykh formakh poteri ustoychivosti pri odnom i tom zhe znachenii kriticheskoy nagruzki)

PERIODICAL: V sb.: Issledovaniya po vopr. ustoychivosti i prochnosti. Kiyev. AN UkrSSR, 1956, pp 154-162

ABSTRACT: By investigating the stability determinant the author proves that, in the case of the plane buckling of a cyclically symmetrical n-sided polygonal frame operating under compression, each critical loading corresponds to an arbitrary number of different forms of buckling (different characteristic buckling patterns). This conclusion is a development and a generalization of relationships established by S. D. Leytes ["Proyekt i standard" ("Design and Standard"), 1937, Nr 8-9] for the case of a triangular ($n=3$) cyclically symmetrical frame under compression.

A. A. Pikovskiy

Card 1/1

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 111 (USSR) SOV/124-57-7-8175

AUTHOR: Borodyanskiy, M. Ya.

TITLE: On a Particular Problem of the Stability of a Shell Stiffened by Ribs
(Ob odnoy zadache ustoychivosti obolochki, usilennoy rebrami)

PERIODICAL: Tr. Kiyevsk. tekhnol. in-ta pishch. prom-sti, 1956, Nr 16,
pp 225-226

ABSTRACT: Bibliographic entry

Card 1/1

STABNIKOV, V.N. Primal uchastiye BORODYANSKIY, M.Ya., doktor
tekh. nauk; DOBROSERDOV, L.L., doktor ~~tekh.~~ nauk,
retsenzent;

[Rectification apparatus; design and construction] Rekti-
fikatsionnye apparaty; raschet i konstruirovaniye. Moskva,
Mashinostroenie, 1965. 355 p. (MIRA 18:7)

BORODYANSKIY, M.Ya. (Kiyev)

Stability of tower-type structures. Prikl. mekh. 1 no.11:
57-64 '65. (MIRA 19:1)

1. Kiyevskiy tekhnologicheskii institut pishchevòy promyshlen-
nosti. Submitted Dec. 28, 1964.

BORODYANSKIY, N. [Borodians'kyi, N.], inzh.

Storehouses for sugar beets. Sil'. bud. 12 no.8:14 Ag '62.
(MIRA 15:9)

(Sugar beets—Storage)

BORODYANSKIY, N., inzh.

Arrangement of ventilated surface silos for storing sugar
beets. Sel'. stroi. no.7:18-19 '62. (MIRA 15:8)
(Sugar beets--Storage) (Silos--Ventilation)

SHLEYFMAN, F.M.; OKHRIMENKO, A.P.; BORODYANSKIY, N.A. (Kiyev)

Some industrial hygiene problems in the operation of electric
steel-furnaces. Gig. truda i prof. zab. 4 no.12:12-15 D '60.
(MIRA 15:3)

1. Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny
truda i profzabolevaniy.

(STEEL INDUSTRY--HYGIENIC ASPECTS)

BORODYANSKIY, N.A.

Drying work clothes in UGSh-2 individual lockers. Adm.-byt.
komb. ugol'. shakht. no.4:30-34 '61. (MIRA 15:8)

1. Nauchno-issledovatel'skiy institut sanitarnoy tekhniki
Akademii stroitel'stva i arkhitektury Ukrainskoy SSR.
(Work clothes--Drying)
(Employees' buildings and facilities--Equipment and supplies)

BORODYANSKIY, N.A.

Selecting efficient systems and equipment for the ventilation of sugar
beet piles. Sakh.prom. 36 no.11:61-67 N '62. (MIRA 17:2)

1. Nauchno-issledovatel'skiy institut sanitarnoy tekhniki Akademii
stroitel'stva i arkhitektury UkrSSR.

BORODYANSKIY, V.I. (Kiyev 30, ul. Pirogova, d.2, kv.143)

Abstracts. Ortop., travm. i protez. 26 no.3:67-68 Mr '65.
(MIRA 18:7)

1. Iz kliniki ortopedii i travmatologii (rukovoditel' - prof.
B.K.Babich) na baze 2-y Darnitskoy bol'nitsy Kiyeva (glavnyy
vrach - V.F.Anishchenko).

BORODYANSKIY, V.I. (Luganskaya oblast')

Hernias of the umbilical cord. Vop. okh. mat. 1 det. 6 no.4:
(HERNIA)

BORODYANSKIY, V.I.

Pregnancy and cystoma of the ovaries. Akush.i gin. 37 no.1:
96-97 '61. (MIRA 14:6)

1. Iz ginekologicheskogo otdeleniya (zav. I.Z. Knyazevich)
Lyubimskoy bol.'nitsy Luganskoy oblasti.
(PREGNANCY, COMPLICATIONS OF) (OVARIES—DISEASES)

BORODYANSKIY, V.I.

Cholelithic obstruction of the intestines. Khirurgiia 39
no.8:58-62 Ag '63. (MIRA 17:6)

1. Iz khirurgicheskogo otdeleniya (zav. I.K. Singayevskiy)
2-y Darnitskoy bol'nitsy (glavnyy vrach V.F. Anishchenko;
nauchnyy rukovoditel - dotsent P.Ye. Beylin), Kiyev.

BORODYANSKIY, V.P.

Forces and power required in the compression of tobacco bales.
Izv.vys.ucheb.zav.;pishch.tekh. 1:55-58 '61. (MIRA 14:3)

1. Krasnodoraskaya tabachno-fermentatsionnaya fabrika.
(Tobacco manufacture)

BORODYANSKIY, Yu.M.

Some remarks concerning the simulation of an adaptation to an
external media using finite automata. Kibernetika no.2:29-34
Mr-Ap '65. (MIRA 18:5)

L 14102-66 EWT(d) IJP(c)

ACC NR: AP6004246

SOURCE CODE: UR/0378/65/000/006/0018/0027

AUTHOR: Borodvanskiy, Yu. M.

ORG: none

TITLE: Experiments with finite Moore automata 14144155

SOURCE: Kibernetika, no. 6, 1965, 18-27

TOPIC TAGS: finite automaton, automatic control theory

ABSTRACT: The author considers the problem proposed by Moore on the shortest experiment for establishing the fact that an arbitrary representative from the class of all strongly coupled Moore (n, m, p) -automata with paired distinguishable states differs from all remaining representatives of this class where an (n, m, p) -automaton is one with a number of states not exceeding n , with m input and p output symbols. The author proves the following theorem: if $R_{n, m, p}$ is the class of all strongly coupled automata with paired distinguishable states, then there exists a simple experiment of length less than $2^{n(n-1)+1} \cdot (m+6)^{10(n-1)}$ which establishes the fact that an arbitrary representative $\alpha \in R_{n, m, p}$ is distinct from the remaining

Card 1/2

UDC: 519.95

L 14102-66

ACC NR: AP6004246

2

elements in R_n, m, p . The author is grateful to Academician V. M. Glushkov and Candidate of Physical Mathematical Sciences A. A. Letichevskiy for valuable remarks during the composition of this work. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 09Sep65/ ORIG REF: 000/ OTH REF: 002

FW
Card 2/2

BORODYNYA, I.V., kand. veter. nauk; MAKODA, N.G., veterinarnyy vrach

Tactile-cervical method of artificial insemination of cows.
Veterinariia 42 no.12:75-77 D '65. (MIRA 19:1)

1. Tsentral'naya opytnaya stantsiya iskusstvennogo osemeneniya
sel'skokhozyaystvennykh zhivotnykh Ukrainskoy SSR.

BORODYSHKINA, M.H.N.

Technology features of rubber mixtures production of DTP.

Report presented at the Third All-Union Conference on Automation and Mechanization of major rubber production processes, Dnepropetrovsk, 2-6 Oct 62

BORODYUK, V.P., inzh.; KRUG, G.K., kand.tekhn.nauk, dotsent;
STEBAKOV, S.A., inzh.

Using digital computers for obtaining static characteristics
of combined controlled members according to statistical data.
Izv.vys.ucheb.zav.; mashinostr. no.12:135-139 '61. (MIRA 15:2)

1. Moskovskiy energeticheskiy institut.
(Automation)
(Electronic digital computers)

31266
S/103/61/022/011/006/014
D271/D306

16,8000 (1031)

AUTHORS: Borodyuk, V. P., and Krug, G. K. (Moscow)

TITLE: Determining the relationship equations in complex objects

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 11, 1961,
1475-1481

TEXT: Control of complex objects would be facilitated if the importance of parameters affecting the processes were evaluated by static probability equations; methods for finding such equations are considered by the authors. Process parameters are divided into four groups, viz. input, output, disturbing and control; such classification could be used in analyzing entire industrial units. Due to disturbing parameters, the relationship between parameters must be regarded as statistical, and not purely functional. The most effective method of obtaining relationship equations is by analyzing statistical data accumulated in the natural course of processes, and by using correlation analysis. Probability equations between

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S/103/61/022/011/006/014
D271/D306

Determining the relationship ...

output and input parameters allow forecasting of the most likely results of variations in the input; the limits of input parameters can be worked out when permissible variations of output parameters are given. The dependence of output on control parameters is described by the equation

$$\bar{K}_i(\tau) = \int [Z(t - \tau)] \quad (2)$$

4

where \bar{K}_i is the mean value of the i-th output parameter, Z - control parameter and τ - delay in action. Analogous systems of equations between control and input parameters can lead to a prognosis of the values of control parameters necessary in a given situation because different sets of control-input data will exist for various regions of values of output parameters. Probability equations associating output with input and control parameters are the nearest to a full mathematical description of the object considered. The control will be more accurate if more independent variables are in-

Card 2/4

Determining the relationship ...

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D271/D306

cluded in the equation, but for reasons of easier handling it is not advisable to collect all variables in one equation. It is better to split the variables into sub-groups each containing mutually dependent parameters free from the influence of other sub-groups. In order to determine the coefficients of probability equations the correlation analysis makes use of the least squares method. In the case of the linear correlational dependence, the degree of coupling becomes identical with the correlation coefficient R. As an example of the method of setting probability relationship equations a chemical continuous process was analyzed; it had 19 input, 5 control and 1 output parameters. Input parameters were split into sub-groups of two each, in all possible combinations with the exception of those which were known to be useless as the variables were independent. 66 equations were thus obtained of the type

$$\bar{K} = a_0 + a_1 X_1 + a_2 X_j \quad (7)$$

Card 3/4

Determining the relationship ...

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D271/D306

All numerical calculations were performed by a digital computer type "Ural - 1". After calculating all coefficients for all equations as well as correlation coefficients it was found that the range of value of the correlation coefficients was 0.01 - 0.34. Finally six equations were chosen, for which correlation coefficients were 0.31 - 0.34. There are 3 figures and 3 Soviet-bloc references.

SUBMITTED: March 3, 1961

Card 4/4

BORODYUK, V.P.; KORTOV, V.S.

Use of computer devices for optimum control over processes in
the chemical industries (survey). Zav.lab. no.10:1211-1217 '62.
(MIRA 15:10)

(Chemical industries) (Automation) (Calculating machines)

BORODYUK, V.P.; CHIRKOV, I.M.

Attainment of mathematical descriptions by the methods of active
and passive experiments. Trudy MEI no.51:49-114 '63.
(MIRA 17:9)

BORODYUK, V.P.; KRUG, G.K., kand. tekhn. nauk, dotsent

Some aspects of experimental design in collecting statistical
materials. Trudy MEI no.51:115-175 '63. (MIRA 17:9)

BOROEYUK, V.P.; KRUG, G.K.

Some problems concerning the organization of an experiment for locating
a mathematical description of a technological process. Avtom. upr. i
vych. tekhn. no.6:111-127 '64. (MIRA 17:10)

BORODYUSHKOV, Yu.N. (Rostov)

A new method for fixing vaginal smears. Probl. endokr. i gorm. 4 no.5:
121-122 S-O '58. (MIRA 11:12)

1. Iz eksperimental'nogo otdela (zav. - prof. M.A. Ukolova) Rostovskogo
nauchno-issledovatel'skogo instituta rentgenologii, radiologii i onkologii
RSFSR (dir. - F.N. Snegirev).

(VAGINAL SMEARS,

fixation technic (Rus))

ACC NR: AP6031636 (1) SOURCE CODE: UR/0297/66/011/009/0840/0843

AUTHOR: Ferdinand, Ya. M.; Nedechkina, Z. P.; Vozzhayeva, A. P.; Vetlugina, K. F.; Vevyur, N. A.; Zhigul'skaya, I. F. Borodzdenko, T. F.

ORG: Rostov-na Donu Scientific Research Institute of Epidemiology, Microbiology, and Hygiene (Rostovskiy-na-Donu nauchno-issledovatel'skiy institut epidemiologii, microbiologii i gigiyeny); Department of Infectious Diseases, Astrakhan Medical Institute (kafedra infektsionnykh bolezney Astrakhanskogo meditsinskogo instituta); Department of Infectious Diseases, Saratov Medical Institute (kafedra infektsionnykh bolezney Saratovskogo meditsinskogo instituta); Hospital No. 10, Volgograd (bol'nitsa No. 10)

TITLE: Antibiotic therapy and chronic typhoid fever carriers

SOURCE: Antibiotiki, v. 11, no. 9, 1966, 840-843

TOPIC TAGS: typhoid fever, typhoid carrier, antibiotic ~~therapy~~, infective disease, *drug treatment*

ABSTRACT: Antibiotic treatment does not eliminate all typhoid carriers, but the treatment is justified since the highest percent of carriers was found among untreated patients. Administration of antibiotics until the third week of convalescence sharply reduces the number of carriers. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 05Nov65/ ORIG REF: 008/ OTH REF: 001/
Card 1/1 UDC: 616.927-085.779.931-07:616-008.97 (Bac. typhi)

BORODZICH, E.V.; SOROCHENKO, R.L.

Use of low-noise amplifiers in spectral radiometers. Izv.vys.
ucheb.zav.; radiofiz. 6 no.6:1167-1172 '63. (MIRA 17:4)

1. Fizicheskiy institut imeni Lebedeva AN SSSR.

BORODZICH, G. A.

Likvidatsiia ledianogo zatora na Maloi Severnoi Dvine u g. Kotlasa vesnoi 1940 g. [Liquidation of ice obstruction on the Malaya Severnaya Dvina near the city of Kotlas in spring of 1940]. (Vodnyi transport, 1940, no. 9, p. 33-34, map).

DLC: HE561.R8

SO3. Soviet Transportation and Communications. A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

BORODZICH, G.A.

Constructions made out of branches
Rech. transp. 12, no.4, 1952

STARKIEWICZ, Witold; BORODZICZ, Bogdan

Various results of surgical therapy of strabismus. Klin. oczna
25 no.1:1-8 1955.

1. Z Kliniki Ocznej Pomorskiej A.M. im. Gen. Karola Swierczewskiego
w Szczecinie. Kierownik: prof. dr med. w Starkiewicz.
(STRABISMUS, surgery,
results.)

BORODZIK, E.

Advice on methods of getting wood. p.43 (LAS POLSKI. Vol. 26, no. 3, Mar. 1952

SO: Monthly List of East European Accessions, L.C., Vol. 3, No. 4, April, 1954

SOROCHENKO, R.L.; BORODZICH, E.V.

Detection of the radio emission line of excited hydrogen in the NGC 6618 (Omega) nebula. Dokl. AN SSSR 163 no.3:603-605 J1 '65. (MIRA 18:7)

1. Fizicheskiy institut im. P.N.Lebedeva AN SSSR. Submitted January 5, 1965.

POL/7-60-22-32/46

AUTHOR: Borodzik, Feliks, Engineer

TITLE: Who Has Time to Fly ?

PERIODICAL: Skrzydlata polska, 1960, No. 22, Supplement "Przegląd
lotnictwa cywilnego" 1960, No. 11, pp. 1, 2 and 3

TEXT: The author criticizes the PRL Aeroclubs and the flying instructors for spending too much time in preparing flights. As an example he points out that for each hour of flying 10 hours must be spent by pilots on the airfield. He proposes that work saving ideas should be introduced in Aeroclubs. O

Card 1/1

BORODZIK, Feliks, inz.

Some remarks on the organization of the production process and the introduction of work standards in the Polish air craft industry.
Techn lotn 17 no.2:43-46 F '62.

BORODZIK, Feliks

- Warsaw, Technika Lotnicza, Vol XVII, No 2, February 1962
1. "New Possibilities of Solving Technical and Economic Problems by Rationalization Work," unaltered; p 53.
 2. "Selection of Working Injections for Feeding Construction Chambers in By-Phase Jet Engines," See JAKIMOWICZ, Magister Engri pp 34-37
 3. "Investigation of the Cause of Break with the Aid of the Direct Test," See JAKIMOWICZ, Engri, and Regulacy SCHIMMELSKI, Magister Engri pp 38-43.
 4. "Some Examples Concerning Production Organization and the Introduction of Technical Standards in the Aviation Industry," Feliks BORODZIK, Engri pp 43-46.
 5. "Technical Tests of the ST-210 Canaville Aircraft," Bodan JAKUBOWICZ, Magister Engri pp 46-51.
 6. "The Doublet Working the 192 Anniversary of the Aviation Institute (Twenty Years)," unaltered; pp 51-52.
 7. "Recent News," S. WALECZYK, Magister Engri pp 53-55.
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1988

— 4/1 —

BORODZINSKI, K.

Distr: hE2c(j)

Polystyrene. 7 K. Borodzinski, A. Rausch, A. Palkowski, K. Gajalski, M. Izyk, and K. Lewanska. Pol. 41,917, Apr. 30, 1959. Styrene 100 is added to H₂O 600 warmed to 80°, and poly(vinyl alc.) 0.4 kg. in 20 l. H₂O is then added with stirring, followed by 12 l. of 1% soln. of Nekal and 360 g. Bz₂C₆ in 10 kg. of styrene. After 2 hrs., 10 l. of 5% gelatin soln. is introduced at 75°, followed during 3-5 hrs. by 100 g. Na₂SO₄ in 10 l. H₂O. The temp. is raised to 80° after 8 hrs. and kept until granules of polystyrene having a sp. gr. higher than that of H₂O are obtained. Heating is then prolonged, the product is sepd. by filtering, and dried. The polymer is uniformly granulated and has an av. mol. wt. of 45,000-55,000, a bending resistance of 91.5 kg./sq. cm., and a heat resistance of 92°. K. Bojanowska

1-9-59 (W/B)

PA 19T83

BORODZYUK, G. G.

USSR/Cables - Electrical Properties
Boosters, Voltage

Aug 1946

"Balancing Boosters on Cable Lines," G. G. Borodzyuk, 6 pp

"Vestnik Svyazi - Elektro Svyaz'" No 8 (77)

There is no similarity between balancing two-way low frequency boosters on inter-city cables and balancing boosters on strung wire lines. For the former, a study must be made of the schematic design and balance circuit elements for coil loading and non-coil loading of cable lines, as well as of the method of selecting balance circuits of specially constructed boosters.

19T83

BORODZYUK, G.G., inzhener; SHLYAKHTER, M.I., inzhener.

~~SECRET~~

Echo screeners and their use on interurban trunk lines. Vest.sviazi
7 no.7:12-13 J1 '47. (MIRA 9:1)

(Telecommunication)

DORCHZYUK, G. G. and ADZHEMOV, S. A.

"EQUIPMENT OF THE K-12 12-CHANNEL SYSTEM"

Vestnik Svyazi, No 6, Moscow, 1952, pp 6-8

Translation M-1274, 17 Oct 56.

BORODZYUK, G. G. and ADZHEMOV, F. A.

"EQUIPMENT OF THE K-12 12-CHANNEL SYSTEM (CONCLUSION)"

Vestnik Svyazi, No 7, Moscow, 1952, pp 3-6

Translation M-1246, 27 Sep 56.

BORODZYUK, G. G. -----Cand. Tech. Sci
STEPANOV, G. N. Engineer
CHEREMETEV, A. V. Cand. Tech. Sci.

"EQUIPMENT OF A 24-CHANNEL MULTIPLEX TELEPHONE SYSTEM
USING SYMMETRICAL LINE CABLES (K-24)".

Vestnik Svyazi, No 6, 1953, pp 3-6.

Translation M-1277, 30 Oct 56.

SOV/106-59-1-9/12

AUTHORS Borodzyuk G.G., and Musayev R.A.

TITLE: The Calculation of the Reliability of a Long Distance Cable Communication System (O raschete nadezhnosti sistemy dal'ney svyazi po kabel'nyy liniyam)

PERIODICAL: Elektrosvyaz', 1959, Nr 1, pp 70-75 (USSR)

ABSTRACT: Generally speaking the reliability of very long lines can be increased in two ways, either by increasing the reliability of the separate components which make it up or by the technique known in the Soviet Union as "reservation". This is simply the introduction of planned redundancy. It is possible to show that in practice both these methods are required. The basic theoretical material for the calculations is given in Refs 1 and 2. Failure of the cable installations themselves is extremely rare and therefore trouble is to be expected only from the intermediate sections which contain amplifiers. Here of course the trouble arises mainly from the unreliability of valves. "Reservation" is usually carried out in one of two ways: (1) by connecting valves in parallel in each stage of an amplifier; (2) by the duplication of entire amplifiers. The second method has two possible variants;

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either the amplifiers are entirely self-contained or both the main and reserve amplifiers share a number of common components such as, for example, the negative feed-back network. It can be noted in passing that in practice a system is considered to be satisfactorily reliable, if it is out of operation for one hour per year of operation. The probability of failure is given by (1), where q is the reliability of action of a valve over a time t . The number of amplifiers in the trunk line is n and the number of stages in the amplifier is m ; then in a complete transmission line the probability of failure is given by (2). If in addition, valves are paired in parallel then the overall probability of failure is given by (4). This expression ignores the possibility of a short circuit in a valve. The survival curve for valves is assumed to be exponential, then the equation for P_1 (in the middle of page 72) determines the probability to be substituted in (4). In practice m varies between 3 and 4 and n can be as large as 420. Eq (4) is expanded as a series in (5). Hence the approximate

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expression for system loss is given by (6) in the case of valve redundancy. The corresponding expression for complete "reservation" of amplifiers is given by the equation immediately following (8). By comparing (5) and (8) it will be seen that, neglecting the case of short circuits within valves, the probability of failure of the system "reserved" with the aid of parallel valves in comparison with one using parallel amplifiers is m times less. In order to take into account the possibility of valve failure due to short circuit, the original probability p in previous section is now made up of two components, one of which is the probability of failure due to short circuit, and the other is the probability due to all other causes. A coefficient α is introduced showing which part of all failures is due to short circuits and (12) is the new expression for a probability which should be substituted in (4) to take account of the possibility grid cathode shorts in valves. In practice the value of α is usually less than 0.1. The merits of the two systems of "reservation" are now

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compared when the possibility of short circuit is allowed. The ratio of the losses in the valve and amplifier methods is given by (16). This ratio is plotted in Fig 1 for $m = 3$ and $m = 4$. Finally a calculation is made for a system 2500 km long with 4-stage amplifiers having two valves per stage. The total number of amplifiers is 420, the probability of failure is $p = 1.6 \times 10^{-4}$ and this is considered unsatisfactory. By using valves with the life of 10000 hr the system performance is again acceptable ($p = 8 \times 10^{-5}$). There are 1 figure and 2 references, one of which is Soviet and 1 English.

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BOBODZYUK, G.G.; STEPANOV, G.N.; DRIATSKIY, N.M.; IONTOV, L.Ye.; KOVALEV, S.M.; BLOKHIN, A.S.; DVORTSOV, L.D.; LUGOVSKOY, N.Ye.; MERKULOV, A.G.; SMIRNOV, B.P.; ROGINSKIY, E.M.; BALAN-IL'YEVSKAYA, I.A.; IZRAILIT, S.G.; GRANAT, M.B.; ZARIN, S.A.; otv.red.; FEDOROVSKAYA, L.N., red.; MARKOCH, K.G., tekhn.red.

[Multichannel apparatus for high-voltage telephony on overhead lines and cables.] Mnogokanal'naya apparatura vysokochastotnogo telefonirovaniia po vozdushnym i kabel'nym liniiam sviazi. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1959. 511 p.

(MIRA 14:1)

(Telephone--Equipment and supplies)